DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: GOOSE POND	Lake Area (ha):	6.47
Town: NEW LONDON	Maximum depth (m):	1.0
County: Merrimack	Mean depth (m):	0.3
River Basin: Connecticut	Volume (m³):	21500
Latitude: 43°25'50" N	Relative depth:	0.3
Longitude: 72°02'35" W	Shore configuration:	1.44
Elevation (ft): 1170	Areal water load (m/yr):	145.7
Shore length (m): 1300	Flushing rate (yr ⁻¹):	437.0
Watershed area (ha): 1686.4	P retention coeff.:	0.14
% watershed ponded: 12.2	Lake type: natural	w/dam

BIOLOGICAL:	2 January 1992	15 July 1991
DOM. PHYTOPLANKTON (% TOTAL) #1	ASTERIONELLA 95%	NO PLANKTON RESULTS
#2		
#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)		370
CHLOROPHYLL-A (µg/L)		2.18
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 69%	NO PLANKTON RESULTS
#2	POLYARTHRA 31%	
#3		
ROTIFERS/LITER	16	
MICROCRUSTACEA/LITER	<1	
ZOOPLANKTON ABUNDANCE (#/L)	16	
VASCULAR PLANT ABUNDANCE		Common/Abun
SECCHI DISK TRANSPARENCY (m)		1.0 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)	14.0	7.2
BACTERIA (fecal col., #/100 ml) #1		< 10
#2		< 10
#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None Hypolimnion volume (m³): None Anoxic volume (m³): None

HEMICAL: Lake: GOOSE POND Town: NEW LONDON				
	2 January 1992		15 July 1991	
DEPTH (m)	1.0		0.5	
pH (units)	6.1		6.7	
A.N.C. (Alkalinity)	3.8		5.3	
NITRATE NITROGEN	< 0.02		< 0.05	
TOTAL KJELDAHL NITROGEN				
TOTAL PHOSPHORUS	0.002		0.007	
CONDUCTIVITY (µmhos/cm)	76.1		115.8	
APPARENT COLOR (cpu)	8		21	
MAGNESIUM			0.75	
CALCIUM			4.1	
SODIUM			15.4	
POTASSIUM			0.72	
CHLORIDE	15		27	
SULFATE	6		5	
TN : TP				
CALCITE SATURATION INDEX			3.3	,

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1991

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	4	4	0	8	Meso.

COMMENTS:

- 1. Also known as Otterville Pond.
- 2. No boat access.
- 3. Pond is adjacent to Interstate 89; pond receives drainage from the highway.
- 4. Entire pond is less than 5 feet deep.
- 5. Water is clear.
- 6. Concrete dam was present.
- 7. Road with sewer line crosses the pond just upstream of the dam.
- 8. Dominant genera of wholewater plankton were <u>Chroomonas</u> (20%) and tiny green flagellates (20%). Dominant classes were greens (50%) and Cryptomonads (25%).

FIELD DATA SHEET

LAKE: GOOSE POND DATE: 07/15/91

TOWN: NEW LONDON

WEATHER: CLEAR & WARM

DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	22.0	7.2	82 %
1.0	22.0	7.2	82 %
		1700	
144			

SECCHI DISK (m): 1.0 VOB COMMENTS:

BOTTOM DEPTH (m): 1.0

TIME: 1130

*Dissolved oxygen values are in mg/L

AQUATIC PLANT SURVEY

E: GOOSE POND	TOWN: NEW LONDON	DATE: 07/15/91	
PLANT NAME		ADVIDANCE	
GENERIC	COMMON	ABUNDANCE	
Pontederia cordata	Pickerelweed	Abundant	
Utricularia	Bladderwort	Abundant	
Nymphoides cordatum	Floating heart	Scattered	
Nymphaea	White water lily	Common	
Typha	Cattail	Sparse	
Potamogeton	Pondweed	Scattered	
Brasenia schreberi	Water shield	Scattered	
Sparganium	Bur reed	Scattered	
	Bottom growth	Scattered	
Nuphar	Yellow water lily	Scattered	
Eriocaulon septangulare	Pipewort	Sparse	
	GENERIC Pontederia cordata Utricularia Nymphoides cordatum Nymphaea Typha Potamogeton Brasenia schreberi Sparganium Nuphar	PLANT NAME GENERIC COMMON Pontederia cordata Pickerelweed Utricularia Bladderwort Nymphoides cordatum Floating heart Nymphaea White water lily Typha Cattail Potamogeton Pondweed Brasenia schreberi Water shield Sparganium Bur reed Bottom growth Nuphar Yellow water lily	

GENERAL OBSERVATIONS:

- 1. A very shallow weedy pond.
- 2. Bladderwort is over the entire bottom of the pond. It is not a nuisance to boating.

OVERALL ABUNDANCE: Common/Abun